

REMARKS

The last Office Action has been carefully considered.

It is noted that claims 17-27 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. patent no. 6,727,812.

Also, claim 23 was objected to.

In connection with the Examiner's objection of claim 23, this claim has been amended in compliance with the Examiner's requirements.

After carefully considering the Examiner's grounds for the rejection of the claims under the judicially created doctrine of obviousness-type double patenting, applicants have retained the claims as they were. Applicants respectfully submit that the claims currently on file clearly and patentably distinguish from the invention disclosed in U.S. patent no. 6,726,812.

U.S. patent no. 6,726,812 discloses a method in which an error is determined when "a noise dependent value 10 (I) exceeds at least one predefinable upper threshold value and (II) falls below a predefinable lower threshold value". In contrast, claim 17 of the present application defines a method in which "an increase of the reference level is limited in consideration of a sound level of another one of the multiple cylinders or a sound level of all cylinders". As can be seen, the method defined in claim 17 of the present application is significantly different from the method disclosed in the reference.

In the U.S. patent applied by the Examiner, for an error recognition, the noise-dependent value with a fixed upper and lower threshold is compared. Here, a comparison of these absolute upper and lower threshold values is therefore performed.

In contrast, as defined in claim 17 of the present application, the change of the reference level is influenced. In other words, it is not an error which is determined, but instead a change of the reference level is limited. Also, the limitation is performed not by comparison with fixed threshold values, but by the comparison with a noise of other cylinders.

It is therefore believed to be clear that the method for detecting knock in an internal combustion engine with multiple cylinders in accordance with the present invention as defined now in claim 17 is significantly different from the method disclosed in U.S. patent no. 6,727,812, and it can not be considered as obvious from the method disclosed in this reference.

An error detection by the comparison with fixed thresholds has nothing to do with a knock detection which involves limiting of the reference level in its change.


The present invention can not be considered as obvious from the method disclosed in the reference, and therefore it is believed that the obviousness type double patenting should be considered as not applicable, and the rejection based on it should be withdrawn.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance,

then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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